

## SERVICE MANUAL

## MODEL ELEVEN GX

# MODEL ELEVEN GX (KR-11000GX)

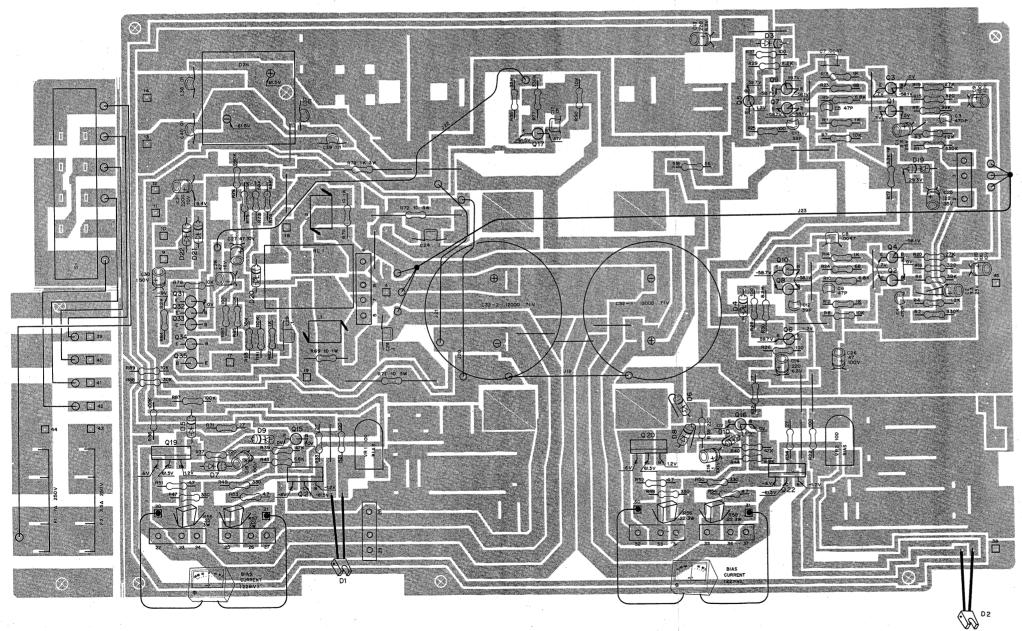
Model ELEVEN GX circuit only is modified power amplifier from Model ELEVEN G.

This Service Manual documents a whole schematic, spec. PCB illustration and parts list.

As for adjustment procedure, disassembly and other items, refer to the Model ELEVEN G Service Manual.

PC BOARD

POWER AMP (X07-1760-80)
COMPONENT SIDE VIEW



### **PARTS LIST**

| Ref. No.   | Parts No.                  | Description                               | Re-        |
|------------|----------------------------|---|------------|
| 参照番号       | 部品番号                       | 部品名/規格                                    | 備名         |
| TOTAL      |                            |   |            |
| •          | A20-1475-02                | FRONT PANEL (11GX) FRONT PANEL (11000GX)  | *          |
| -          | A20-1476-02<br>A3C-0148-03 | DIAL BACK BOARD                           |            |
| •          | A33-0051-01<br>A50-0069-03 | REFLECTOR<br>SIDE PLATE (L)               | <b>±</b> . |
| -          | A50-0070-03                | SIDE PLATE (R)                            | *          |
|            | A54-0175-12                | WOOD FRONT AND TOP BOAR                   | *          |
| -<br>-     | B01-0120-03<br>B01-0121-04 | PANEL ESCUTCHEON SIDE                     |            |
| •          | B01-0122-04<br>B04-0069-03 | PANEL ESCUTCHEON SIDE<br>MESH PLATE       |            |
| •          | B07-0230-14                | ESCUTCHEON (SHAFT)                        | Ì          |
|            | B07-0234-03<br>B07-0235-04 | ESCUTCHEON (LEVER) ESCUTCHEON (POWER)     |            |
| •          | 807-0243-04<br>807-0244-03 | ESCUTCHEON (PUSH SW) ESCUTCHEON (PUSH SW) |            |
| -          | 807-0245-03                | ESCUTCHEON (PUSH SW)                      |            |
| •          | B08-0005-04<br>B08-2017-14 | INDICATOR INDICATOR                       |            |
| •          | B08-3016-04                | INDICATOR                                 |            |
| -          | B10-0238-03<br>B20-0422-03 | FRONT GLASS<br>DIAL CALIBRATIONS          |            |
| <b>-</b> . | B21-0023-14                | DIAL POINTER                              |            |
| •          | B30-0077-05<br>B30-0157-05 | LAMP (8V,50MA) X2<br>LAMP ASSY            |            |
|            | B30-0158-05<br>B30-0159-05 | LAMP (8V,0.2A)<br>LED                     |            |
| •          | 831-0286-05                | METER (TUNING/SIGNAL)                     |            |
| -          | B31-0287-05<br>B46-0062-20 | METER (POWER) WARRANTY CARD               | U          |
| •          | B46-0063-00<br>B50-3027-00 | WARRANTY CARD INST.MANUAL (11GX)          | U<br>*     |
|            | B50-3028-00                | INST. MANUAL (11000GX)                    |            |
| C1 ,2      | c91-0023-05                | CERAMIC 0.01UF 250VAC                     |            |
| Ç 6        | c52-1756-16                | CERAMIC 560PF K                           |            |
| •          | D15-0171-13                | PULLEY X4                                 |            |
| -          | D20-0142-03                | DIAL SHAFT ASSY<br>TIMER SHAFT            |            |
| •          | 022-0033-04                | COUPLING                                  |            |
| •          | D32-0082-04                | SWITCH STOPPER                            | -          |
| -          | E02-0001-05                | TRANSISTOR SOCKET                         |            |
| •          | E06-0501-05                | DIN CONNECTOR PHONE JACK                  |            |
| -          | E13-0415-05                | PHONO JACK (4P)                           |            |
| -          | E13-0609-05<br>E14-0107-05 | PHONO JACK (6P) PHONO PLUG (SHORT)        |            |
| -          | E29-0082-05<br>E30-0545-05 | ANTENNA TERMINAL<br>POWER CORD (11GX)     |            |
| •          | E30-0580-05                | POWER CORD (11000GX)                      |            |
| -          | 601-0045-24                | DIAL SPRING<br>CCILED SPRING              |            |
| -          | G01-0360-04<br>G01-0361-04 | COILED SPRING (PUSH Sw)                   |            |
| -<br>      | 610-0017-04                | DUST SHEET                                |            |
| -<br>-     | 101-3044 04                | CARTON BOX (11GX) CARTON BOX (11000GX)    |            |
| -          | H1C-1519-02                | POLYSTYRENE FIXTURE                       | -          |

| Ref.              | No.               | Par                     |
|-------------------|-------------------|-------------------------|
| 参照                | 番号                | 部品                      |
| -                 |                   | H2C=0                   |
| -                 |                   | J02-0                   |
| -                 |                   | J12=0<br>J19=0<br>J19=0 |
| -                 |                   | J19-0                   |
|                   | ·                 | J 41 = C<br>J 41 = C    |
| •                 |                   | K23-C                   |
| -                 |                   | k23-C                   |
| •                 |                   | K23 € C                 |
| -                 |                   | K27-C                   |
| -                 |                   | K29-(<br>K29-(          |
| -                 |                   | L01-1                   |
| •                 | . /               | 0-80N<br>0-80N          |
| \$1<br>\$2        | - 1               | s59-1<br>s33-4          |
| •<br>•            |                   | T90-(                   |
|                   | , 24<br>, 26      | v04-(<br>v02-(          |
| -                 |                   | x05-1                   |
|                   |                   | x11='<br>x13=i          |
| -<br>PO           | WER               | x14-                    |
| c 1               | , 2               | c25=                    |
| C 5               | , 4<br>, 6<br>, 8 | C71-                    |
| C 9               | ,10               | c24=                    |
|                   | ,12<br>,14        | c71-                    |
| C15               | ,16               | c24-                    |
|                   | ,24               | c46-                    |
| C25<br>C26<br>C28 |                   | C24-<br>C25-            |
| C29               |                   | C24-                    |
| c30               |                   | c24-                    |
| C31<br>C32<br>C37 | -40               | C24-<br>C90-<br>C54-    |
| 1                 |                   | F05-                    |
| F1 .              |                   | 1                       |
|                   |                   | J13-                    |
|                   | ,2                | J13-                    |

## MODEL ELEVEN GX

### **PARTS LIST**

Parts No.

部品番号

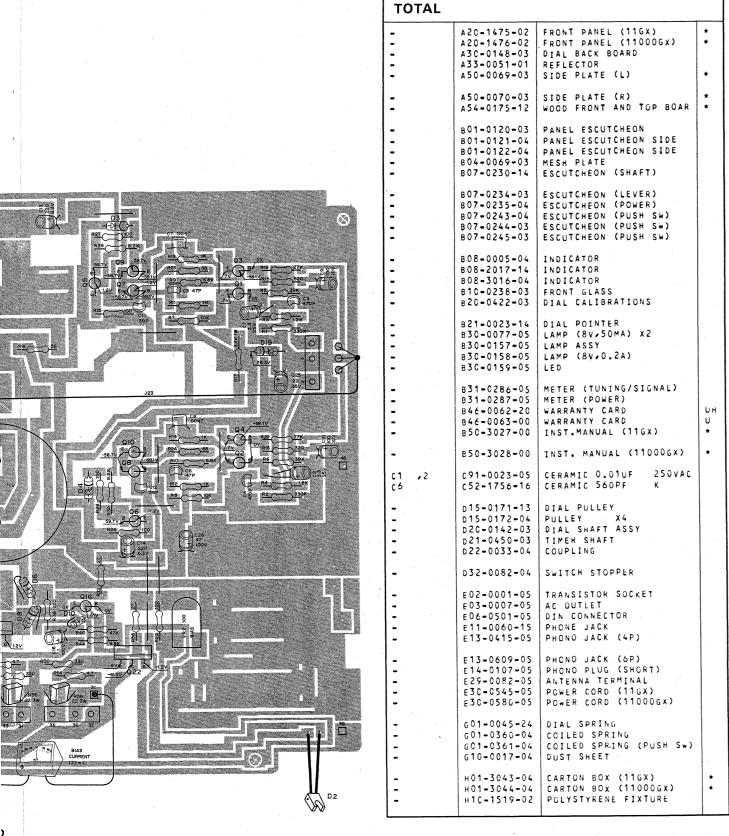
Description

部品名/規格

marks

備考

### **PARTS LIST**

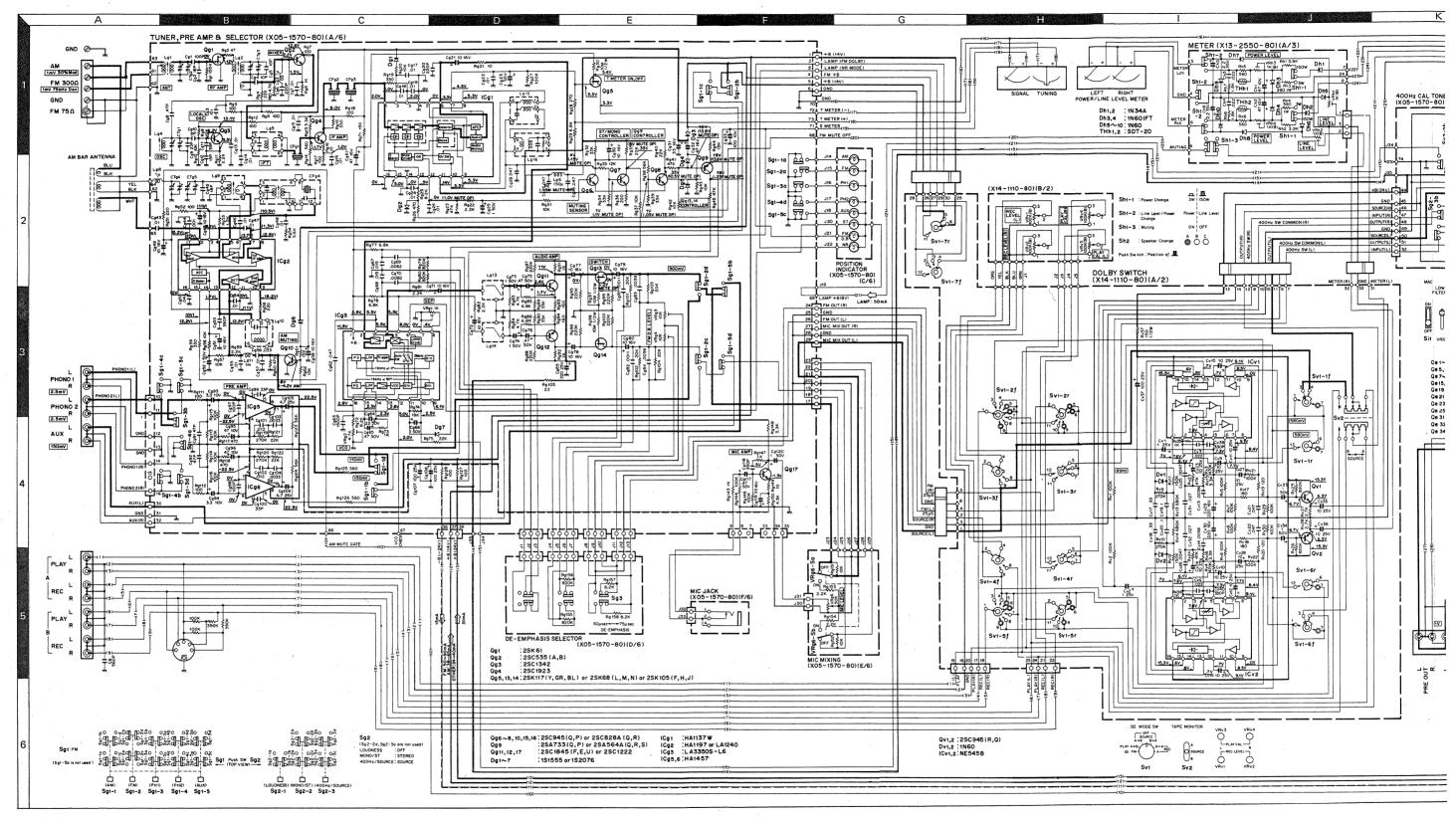


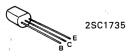
Ref. No.

参照番号

| Ref. No.        | Parts No.                  | Description                            | Re-         | Ref. No.             | Parts No.                  | Description                                   | Re-<br>mark |
|-----------------|----------------------------|--|-------------|----------------------|----------------------------|---|-------------|
| 参照番号            | 部品番号                       | 部品名/規格                                 | marks<br>備考 | 参照番号                 | 部品番号                       | 部品名/規格  | 備考          |
|                 | H2C-0449-04                | COVER                                  |             | R18                  | R43-1256-05                | FL=PROOF RD56 J ZE                            |             |
|                 | 100-0447 04                | 0072.1                                 |             | R23 .24              | R43-1268-05                | FL-PROOF RD68 J 2E                            | 1           |
| -               | J02-0104-04                | FOCT                                   |             | R25 -28              | R43-1210-15                | FL=PROOF RD100 J 2E<br>RC 8,2K K 2H           |             |
| •               | J12-0010-04                | SHORT PIN                              |             | R31 -34              | R40-8382-26<br>R43-1227-05 | FL-PROOF RD27 J 2E                            |             |
| •               | J19-0506-05<br>J19-0507-05 | PCB HOLDER<br>ANTENNA HOLDER           |             |                      | K43-1221 03                | 7 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7       |             |
| -               | 119-0524-14                | LED HOLDER                             |             | R37 ,38              | R43-1222-15                | FL-PROOF RD220 J 2E                           |             |
|                 |                            |  | 1 1         | R47 -50              | R43-1233-15                | FL-PROOF RD330 J 2E<br>FL-PROOF RD4.7 J 2E    |             |
| -               | J41-0033-05                | BUSHING (11GX)                         |             | R51 = 54<br>R55 = 58 | R43-1247-95<br>R92-0167-05 | FL-PROOF RD4.7 J ZE<br>CEMENT 0.22 J 3F       |             |
| • .             | J41-0034-05                | BUSHING (11000GX)                      | 1           | R69 .70              | R47-5410-05                | FL-PROOF RS10 J 3A                            |             |
| -               | K23-0289-04                | KNOB (TUNING)                          |             | ""                   |                            |   |             |
| -               | K23-0290-04                | KNOB (VOL/BAL/NR MODE)                 |             | R71 ,72              | R47-5610-05                | FL-PROOF RS10 J 3F                            |             |
| -               | ĸ23-0303-03                | KNOB(MIC)                              |             | R79                  | R47-5610-25<br>R12-0052-05 | FL-PROOF RS1K J 3F<br>TRIMMING POT 100(B)BIAS |             |
| -               | £23-0307-03                | KNOB (TIMER)                           |             | VR1 .2               | R12-0032-03                | RIMMING POT TOOLBYBIAS                        |             |
| •               | k23-0308-04                | KNOB(DOLBY)                            |             | RL1                  | s51-2038-05                | RELAY   |             |
| -               | K27-0070-04                | KNOB (LEVER)                           |             | s1                   | s31-2046-05                | SLIDE SWITCH                                  |             |
| -               | K27-0075-04                | KNOB (MAC)                             | 1 1         |                      |                            |   |             |
| -               | K29=0299=04                | KNOB (3KEY)                            |             | 01 .2                | v11-5100-40<br>v11-0271-05 | STV-4H(G)<br>152076                           |             |
| -               | ¥29-0300-04                | KNOB (3KEY,5KEY)                       | 1 1         | 03 ,4                | v11-0273-05                | 152076A                                       |             |
| •               | L01-1846-15                | POWER TRANSFORMER                      |             | 07 .8                | v11-0271-05                | 152076  |             |
|                 | 201-1040-13                | TOWER TRANSFORMER                      |             | D9 .10               | v11-4161-06                | wz-044  |             |
| -               | N08-0127-05                | DRESSED SCREW (CASE)                   |             | 1                    |                            | 1.7.700                                       |             |
| •               | N08-0128-35                | DRESSED SCREW (GND)                    |             | D19<br>D20           | v11-4100-20<br>v11-0295-05 | wz-300  | 1 .         |
| . 1             | s59-1041-05                | SWITCH (TIMER)                         |             | D20                  | v11-0271-05                | 152076  |             |
| ;1<br>;2        | s33-4014-05                | LEVER SWITCH (POWER)                   |             | D22                  | v11-0295-05                | W06B  |             |
|                 | 333-4014-03                | CEVER SHITTEN COME                     |             | D26                  | v11-2100-80                | M4C-51-13+2                                   | .           |
| • 1             | T90-0083-05                | AM ANTENNA                             |             |                      | 00000 10                   | 2SA992(F.E)                                   |             |
| •               | T90-0202-05                | FM ANTENNA                             |             | 01 -4                | v01-0992-10<br>v01-0199-05 | 2SA992(F/E)<br>2SA899(B/V)                    |             |
| 27 2/           | v04-0555-00                | 250555                                 |             | 07 -10               | v03-0460-05                | 2sc1904(B,V)                                  |             |
| 23 ,24 25 ,26   | v02-0600-00                | 258600                                 |             | 915 ,16              | v03-1845-10                | 2SC1845(F,E)                                  |             |
| 23 /20          | 102-0000-00                | 230000                                 |             | Q17                  | v01-0992-10                | 2SA992(F.E)                                   |             |
|                 | x05-1570-80                | TUNER PCB ASSY                         |             |                      | 07 0//0 05                 | 2-04047/5 0)                                  | 1           |
|                 | x07-1760-80                | POWER AMP PCB ASSY                     | *           | Q19 ,20<br>Q21 ,22   | v03-0468-05                | 2sc1913(Q,R)<br>2sa913(Q,R)                   |             |
|                 | x11-1480-80<br>x13-2550-80 | TONE AMP PCB ASSY SPEAKER PCB ASSY     |             | 031                  | v01-0564-30                | 25A564A(Q,R) OR                               | -           |
| -<br>-          | x14-1110-80                | DOLBY PCB ASSY                         |             | Q31                  | v01-0733-30                | 2SA733(A)(R.Q)                                |             |
| POWER           | AMP PCB A                  | SS'Y (X07-1760 -80)                    |             | u32 ,33              | v03-0270-05                | 2SC945(R,Q) OR                                |             |
| c1 ,2           | c25-1433-57                | LL-ELEC 3.3UF 25WV                     | $\top$      | Q32 ,33 .            | v03-0345-05                | 2SC828A(Q.R)                                  |             |
| c3 ,4           | c52-1747-16                | CERAMIC 470PF K                        |             | Q34                  | v03=1735=10                | 2sc1735(E) OR                                 |             |
| C5 ,6           | c71-1747-05                | CERAMIC 47PF J                         |             | 034                  | v04=0438=30                | 2sD438MP<br>2sC1845(F,E)                      |             |
| C7 ,8<br>C9 ,10 | C46-1747-26<br>C24-1010-71 | MYLAR 0.0047UF K<br>ELECTRO 100UF 10WV |             | 035                  | V03-1043-10                | 23010731.727                                  |             |
| 9 ,10           | 1624-1010-/1               | ELECTRO TOUCH TOWY                     |             | 1.5                  |                            |   |             |
| 11 ,12          | c71-1739-05                | CERAMIC 390PF J                        |             |                      |                            | 1.4   |             |
| 13 ,14          | c24-0822-71                | ELECTRO 220UF 6.3WV                    |             | 3 14                 |                            |   |             |
| 15 ,16          | c24-2010-51                | ELECTRO TUF 100WV                      |             | 1                    |                            |   |             |
| c17             | c46-1710-36<br>c46-2010-47 | MYLAR 0.01UF K                         | -           |                      |                            |   |             |
| 23 ,24          | (40-2010-47                | V. IUF                                 |             |                      |                            |   |             |
| c 2 5           | c24-6522-61                | ELECTRO 22UF 35WV                      |             |                      |                            |   |             |
| C26             | c24-2047-61                | ELECTRO 47UF 100WV                     |             | 11                   |                            |   |             |
| C28             | c25-1247-67                | LL-ELEC 47UF 16WV                      |             |                      | 1                          |   | - 1         |
| C29             | c24-1047-61                | ELECTRO 47UF 10WV                      |             |                      |                            |   |             |
| C29             | c46-2010-47                | MYLAR 0.1UF M                          | -           |                      |                            |   |             |
| c30             | c24-1710-51                | ELECTRO 1UF 50hV                       |             |                      |                            |   |             |
| C31             | c24-1022-81                | ELECTRO 2200UF 10WV                    |             |                      |                            |   |             |
| ¢32             | c90-0378-05                | ELECTRO 12000UF 71WV                   |             | -                    |                            |   |             |
| c37 -40         | c54-2710-39                | CERAMIC 0.01UF P                       | .           |                      |                            |   |             |
| F1              | F05-7025-05                | FUSE (7A)                              |             | 11.                  |                            |   |             |
| F 1             | F05-3523-05                | FUSE (3.5A)                            |             |                      |                            |   |             |
| -               |                            |  |             |                      |                            |   |             |
| -               | J13-0041-05                | FUSE HOLDER                            |             | 1                    |                            |   |             |
|                 | 170-0090-45                | 6011                                   |             |                      |                            |   |             |
|                 | 1 139-0080-15              | COIL                                   | . 1 .       | 11                   | 1                          |   | - 1         |
| L1 .2           |                            |  | 1 1         | 11                   |                            |   |             |
| L1 ,2           | R47-5433-25                | FL-PROOF RS3.3K J 3A                   |             |                      | -                          |   |             |









2SA564A 2SA733 2SA992 2SC828A 2SC1923 2SA872 2SC945 2SD438MF 2SA954 2SC1222 2SA984K



2SC535 2SC1342













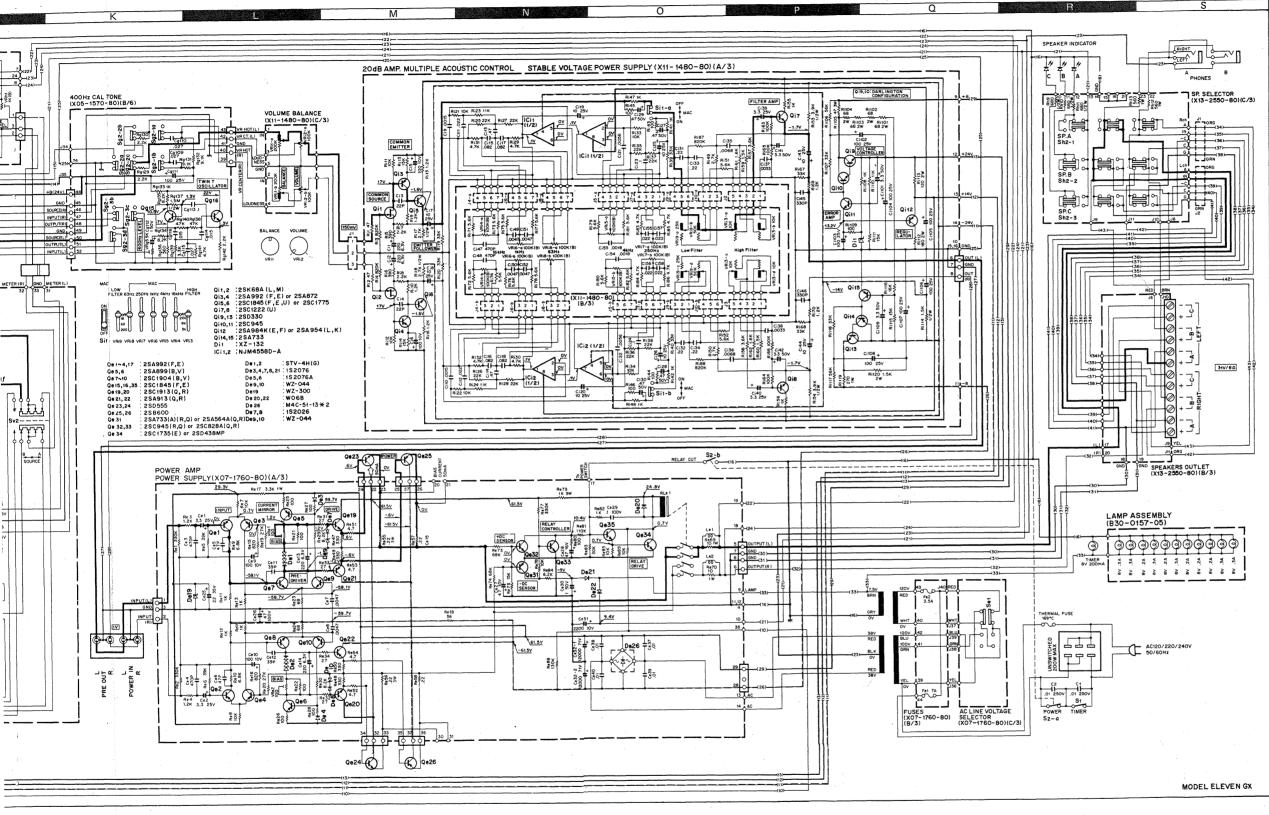




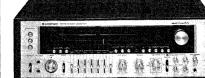


### RECEIVER

# (KR-11000GX)







### POWER AMPLIFIER SECTION

### Power Output

120 watts per channel minimum RMS, both

| Hz with no more than distortion.                      | U.U3% total narmoni                    |
|---|--|
| distortion.   |  |
| Both Channels Driven                                  | 130 + 130W 4Ω at 1 kHz                 |
| Dynamic Power Output                                  | 440W 4Ω                                |
| Total Harmonic Distortion                             | 0.03% at rated power into 8            |
| Indexes disease Disease in                            | 0.01% at 1/2 rated power in            |
| Intermoduration Distortion<br>(60 Hz : 7 kHz = 4 : 1) | 0.01% at 1/2 rated power into 61       |
| Power Bandwidth                                       |  |
| Frequency Response                                    | 5 Hz to 100,000 Hz - 1.5 d             |
| Signal to Noise Ratio                                 | 115 dB (short circuited)               |
| Damping Factor  | 60 at 8 ohms                           |
| Input Sensitivity/Impedance                           |  |
| Speaker Impedance                                     | Accept 4Ω to 16Ω                       |
| PRE AMPLIFIER SECTION                                 | ON                                     |
| Input Sensitivity/Impedance/Sig                       | nal to Noise Ratio (IHF A cur          |
| Phono 1   | 2.5 mV/50 kΩ/80 dB                     |
| Phono 2   |  |
| AUX   | 150 mV/50 kΩ/110 dB                    |
| Tape A, B   | 150 mV/50 kΩ/110 dB                    |
| Mic   | (.5 mV/10 kil/70 dB                    |
| Maximum Input Level for Phono                         | 250 mV (RMS), T.H.D. 0.031<br>at 1 kHz |
| Frequency Response                                    |  |
| Phono   | RIAA standard 30 Hz to 20 k            |
|   | ±0.3 dB                                |
| AUX and Tape  | 1D Hz to 60,000 Hz - 1.0 di            |
| Multiple Acoustic Compensator                         | ±10 40 44 62 Us                        |
| 63 Hz   |  |
| 1 kHz   |  |
| 4 kHz   | +10 dB at 4 kHz                        |
| 16 kHz  | ± 10 dB at 16 kHz                      |
| Loudness Control ( - 30 dB Vol.)                      |  |
| Variable Frequency Filters                            |  |
| Low Filter  | 12 dB/oct. (18 Hz to 200 Hz            |
| High Filter   | 12 dB/oct. (3 kHz to 20 kHz)           |
| Output Level/Impedance                                |  |
| Tape REC (Pin)  | A : 150 mV/100Ω                        |
| (DIN)   | B : 150 mV/100Ω                        |
| Pre Out   | 1 0V/1 k0                              |
| Fre Out   | 1.04/1 / 1.04                          |
| FM TUNER SECTION                                      |  |
| Usable Sensitivity                                    | 10.3 dBf (1.8 µV)                      |
| 50 dB Quieting Sensitivity                            |  |
| Mono  | 14.7 dBf (3.0 µV)                      |
| Stereo  | 37.2 dBf (40 µV)                       |
| Signal to Noise Ratio at 65 dBf                       | 80 48                                  |
| Mono  | 74 dB                                  |
| Total Harmonic Distortion at 65                       |  |
| Mono  |  |
| Stereo  |  |
| Frequency Response                                    | 30 Hz to 15,000 Hz + 0,5.              |
|   | — 1.0 dB                               |
| Capture Ratio   | 1.0 dB                                 |
| Alternate Channel Selectivity                         |  |
| Spurious Response Ratio                               |  |
| Image Response Ratio                                  |  |
| IF Response Ratio                                     | /5 08                                  |
| AM Suppression Ratio at<br>65 dBf                     | 65 dB                                  |
| Stereo Separation                                     | 48 dB at 1.000 Hz                      |
| Otto Geparation                                       | 35 dB at 50 Hz to 15.000 H             |
| Sub Carrier Product Rejection                         |  |
| Antenna Impedance                                     | 300Ω balanced and 75Ω                  |
|   | unbalanced                             |
| FM Frequency Range                                    | 88 MHz to 108 MHz                      |
|   |  |
| AM TUNER SECTION                                      | 20 1/                                  |
| AM TUNER SECTION                                      |  |
| Usable Sensitivity                                    |  |
| Usable Sensitivity                                    | 50 dB                                  |
| Usable Sensitivity                                    | 50 dB<br>55 dB                         |
| Usable Sensitivity                                    | 50 dB<br>55 dB<br>30 dB                |

.50/60 Hz. 110-120/ 220-240V 600 watts at full power Switched 2. Unswitched W 24-9/16" (624 mm) H 8-1/8" (206 mm) D 18-1/8" (460 mm) 47.1 lb (20.5 kg) Note:

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

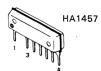
50/60 Hz. 110-120/

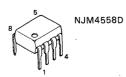
GENERAL

Power Cons A.C. Outlet

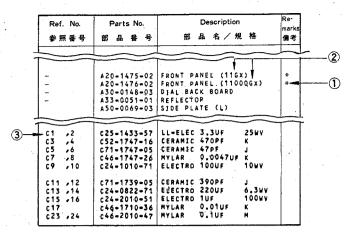
Weight (Net)







### **PARTS LIST**



- Symbol of new parts
- Parts list of Model ELEVEN GX and KR-1100GX was included in this manual.

In column of parts list, 11GX means model ELEVEN GX (U, M type), 1100GX does KR-1100GX (H type).Part list of TUNER, TONE, SPEAKER SELECT and DOLBY PCB ass'y is not written, refer to the MODEL 11G service manual.

(Parts No. B51-0530-00)

- Reference No. in schematic diagram.
- Abbreviation of "ceramic capacitor"

All capacitors and resistors are listed using abbreviations.

Abbreviations

Abbreviations of capacitors (Parts No. with initial letter "C").

ELECTRO ..... Electrolytic capacitor LL-ELEC..... Low leak electrolytic capacitor NP-ELEC...... Non-pole electrolytic capacitor MICA ..... Mica capacitor POLYSTY ..... Polystyrene capacitor MYLAR..... Mylar capacitor CERAMIC ......Ceramic capacitor TANTAL Tantalum capacitor 

The unit "UF" is used in lieu of " $\mu$ F"

Abbreviations of resistors (Parts No. with initial letters "R").

RC ...... Carbon composition resistor RD ...... Carbon film resistor FL-PROOF RD ...... Flame-proof carbon film resistor RW ..... Wire wound power resistor FL-PROOF RS.....Flame-proof metal oxide film resistor RN ..... Metal film resistor 2B ...... Rated wattage 1/8W 2E...... Rated wattage 1/4W 1/2W 2H ...... Rated wattage 3A .....Rated wattage 1W 3D ...... Rated wattage 2W 3F..... Rated wattage 3W 3G Rated wattage 4W

3H ...... Rated wattage All resistor values are indicated with the unit  $(\Omega)$  omitted.

Abbreviations common to capacitors and resistors.

| C   | $\pm 0.25$ pF (Used for capacitors only) |
|-----|--|
| D   | ±0.5pF (Used for capacitors only)        |
| · F |  |
| G   | . ±2% .                                  |
| J   | ±5%<br>+10%                              |
| K   | ±10%                                     |
| M   | ±20%                                     |
| Z   | . +80%, -20% (Used for capacitors only)  |
|     | + 100%, -0% (Used for capacitors only)   |
|     |  |

5W

Resistors RD (carbon composition resistors) are not listed in the parts list. For values, refer to the schematic diagram.

### NOTE:

MODEL 9GX (KR-9000GX) Service Manual had wrong parts No, when reordering, you type the correct parts No. B51-0623-00.